AILERON CONTROL SYSTEM

The ailerons are positioned by the pilot´s control wheels, which are linked together by a torque tube and cables to supply mechanical input to two separate hydraulic actuators.

Each aileron actuator is supplied by both hydraulic systems. Either hydraulic system is capable of providing full power control. If necessary, each hydraulic system supply can be shut off, by means of a button installed on the overhead panel. In case of loss of both hydraulic systems, rotation of the pilot´s control wheels mechanically positions the ailerons.

In case of jamming of either aileron, both panels may be disconnected through a handle located on the control pedestal. This procedure will release the free aileron from its jammed counterpart allowing the free panel to be commanded. When disconnected, an amber light illuminates on the control stand. Controls cannot be reconnected during flight, requiring maintenance action.

An autopilot servo is installed on the left side of the torque tube. The roll trim servo and the artificial feel unit are installed on the right side of the torque tube. In case of system disconnection, the artificial feel unit will actuate on the right aileron only and the autopilot must not be used. The artificial feel unit is provided to give pilots a aerodynamic load feedback imposed on the aileron surface.